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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/687,699	10/12/2000	Shing Mark Lin	ADAPP171	7677

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EXAMINER

HUYNH, KIM T

ART UNIT PAPER NUMBER

2112

DATE MAILED: 03/02/2004

11

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/687,699

Applicant(s)

LIN ET AL.

Examiner

Kim T. Huynh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 October 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-6,8,10-14 and 16-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-6,8,10-14 and 16-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 October 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3-6, 8, 10-14, 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wakeley et al. (US Patent 6,463,498) in view of McCarty et al. (US Patent 5,954,796)

As per claim 1, Wakeley discloses a method for providing device type information using Fibre Channel network, comprising the operation of:

- obtaining device type information for a device coupled to a Fibre Channel based network; (col.25, lines 28-38), (col.7, lines 6-40)
- constructing an address database (fig.3, 330), (col.4, lines 42-51) having a device entry for the device, wherein the device entry includes a port target identifier(fig.3, 316) and a logical unit identifier (fig.3, 318) and wherein the device entry associates the device information with the port target identifier and the logical unit identifier(col.7, lines 6-40), and the logical unit identifier and associates an Arbitrated Loop Physical Address(AL_PA) with the port target identifier and the logical unit identifier; (col.18, lines 53-67)

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- receiving a request for the device type information, wherein the request includes the port target identifier and the logical unit identifier; (col.7, lines 6-40)
- returning the device type information associated with the port target identifier and the logical unit identifier. (col.7, lines 6-40)

Wakeley discloses all the limitations as above except wherein the address database facilitates translation of operating system independent commands received by a Fibre Channel wrapper module into Fibre Channel commands usable by a Fibre Channel layer module that is in communication with a Fibre Channel controller. However, McCarty discloses for communicating between FC environment and OS-compatible communication interface to facilitates dynamic address changing of the FC devices which changing is transparent to the OS-compatible upper-level software structures. (col.4, lines 7-21)

It would have been obvious to one having ordinary skills in the art at the time the invention was made to incorporate McCarty's teaching into Wakeley's method to have address translation of operation system independent commands received by a Fibre Channel wrapper module into Fibre Channel commands usable by a Fibre Channel layer so as to have the ability of hot-plug and to provide for structures that would facilitate dynamic reconfiguration of the devices disposed in an FC environment. (col.1, lines 40-64)

As per claim 14, Wakeley discloses a computer program that provides device type information using a Fibre Channel network, comprising:

- a code segment (fig.9, 911,912), (col.25, lines 3-6) that obtains device type information for a device coupled to a Fibre Channel based network; (col.5, lines 52-55), (col.6, lines 4-5)
- a code segment (fig.9, 911,912) that constructs an address database having a device entry for the device, wherein the device entry includes a port target identifier and a logical unit identifier, and wherein the device entry associates the device information with the port target identifier and the logical unit identifier; (col.7, lines 6-40) and the logical unit identifier and associates an Arbitrated Loop Physical Address (AL_PA) with the port target identifier and the logical unit identifier; (col.18, lines 53-67)
- a code segment (fig.9, 911,912) that receives a request for the device type information, wherein the request includes the port target identifier and the logical unit identifier; and (col.7, lines 10-40)
- a code segment(fig.9, 911,912) that returns the device type information, wherein the request includes the port target identifier and the logical unit identifier; (col.7, lines 10-40)

- a code segment(fig.9, 911,912) that returns the device type information associated with the port target identifier and the logical unit identifier. (col.7, lines 10-40)

Wakeley discloses all the limitations as above except wherein the address database facilitates translation of operating system independent commands received by a Fibre Channel wrapper module into Fibre Channel commands usable by a Fibre Channel layer module that is in communication with a Fibre Channel controller. However, McCarty discloses for communicating between FC environment and OS-compatible communication interface to facilitates dynamic address changing of the FC devices which changing is transparent to the OS-compatible upper-level software structures. (col.4, lines 7-21)

It would have been obvious to one having ordinary skills in the art at the time the invention was made to incorporate McCarty's teaching into Wakeley's method to have address translation of operation system independent commands received by a Fibre Channel wrapper module into Fibre Channel commands usable by a Fibre Channel layer so as to have the ability of hot-plug and to provide for structures that would facilitate dynamic reconfiguration of the devices disposed in an FC environment. (col.1, lines 40-64)

As per claim 3, Wakeley discloses a method further comprising the operation of returning the AL_PA associated with the port target identifier

(fig.3, 316) and the logical unit identifier (fig.3, 318) in response to the request. (col.18, lines 38-67)

As per claims 4 and 17, Wakeley discloses the request is in the form of a SCSI based Protocol Auto Configuration (PAC) command. (col.7, lines 6-40)

As per claims 5 and 18, Wakeley discloses the request is in the form of a SCSI based Probe command. (col.7, lines 6-40)

As per claims 6 and 19, Wakeley discloses method further comprising the operation of performing a lookup operation (fig.6A, 616) to obtain the device information associated with the port target identifier and the logical unit identifier utilizing the address database. (col.10, lines 21-40)

As per claim 8, Wakeley discloses a system for providing device information using Fibre Channel network, comprising:

- a Fibre Channel based network; (col.2, lines 13-16)
- a device entry further associates an Arbitrated Loop Physical Address (AL_PA) with the port target identifier and the logical unit identifier. (col.18, lines 38-67)
- an address database(fig.3,330) having a device entry for the device, wherein the device entry includes a port target identifier(fig.3, 316) and a logical unit identifier (fig.3, 318) and wherein the device entry associates the device information with the port target identifier and the logical unit identifier; (col.6, lines 61-67), (col.7, lines 1-6) and

associates the AL_PA with the port target identifier and the logical unit identifier; (col.18, lines 38-67)

Wakeley discloses all the limitations as above except wherein the address database facilitates translation of operating system independent commands received by a Fibre Channel wrapper module into Fibre Channel commands usable by a Fibre Channel layer module that is in communication with a Fibre Channel controller. However, McCarty discloses for communicating between FC environment and OS-compatible communication interface to facilitates dynamic address changing of the FC devices which changing is transparent to the OS-compatible upper-level software structures. (col.4, lines 7-21)

It would have been obvious to one having ordinary skills in the art at the time the invention was made to incorporate McCarty's teaching into Wakeley's method to have address translation of operation system independent commands received by a Fibre Channel wrapper module into Fibre Channel commands usable by a Fibre Channel layer so as to have the ability of hot-plug and to provide for structures that would facilitate dynamic reconfiguration of the devices disposed in an FC environment. (col.1, lines 40-64)

As per claim 10, Wakeley discloses further comprising a Fibre Channel driver (fig.8, 804) having a Fibre Channel Common Hardware Interface

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(FCHIM). (fig.8, 820) (col.4, lines 42-51), (col.6, lines 41-67), (col.7, lines 1-40)

As per claim 11, Wakeley discloses a system further comprising a SCSI based application in communication with the Fibre Channel driver. (col.4, lines 42-51), (col.6, lines 41-67), (col.7, lines 1-40), (col.8, lines 25-33)

As per claim 12, Wakeley discloses the SCSI based application passes a request for device information to the Fibre Channel driver, the request including the port target identifier and the logical unit identifier. (col.18, 38-67)

As per claim 13, Wakeley discloses the Fibre Channel driver returns the device information based on the port target identifier and the logical unit identifier using the address database. (col.6, lines 41-67), (col.7, lines 1-40)

As per claim 16, Wakeley discloses the device entry further associates an Arbitrated Loop Physical Address (AL_PA) with the port target identifier and the logical unit identifier. (col.18, lines 38-67)

Response to Amendment

3. Applicant's amendment filed on 12/19/03 have been fully considered but not place application in condition for allowance.

a. in response to applicant's argument that Wakeley does not teach or suggest a method, a system, and a computer program for providing the device type information using the Fibre Channel network. As Wakeley notes at (col.7, lines 6-40), the FCP_CMND, is used to send a command from an initiator to a

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target. The FCP_LUN field an address that may implementations, specify a particular adapter, a target device associated with adapter, and a logical unit number corresponding to a logical device associated with the specified target device(device type) that together represent the target for the FCP_CMND.

b. In response to applicant's argument that Wakeley does not teach or suggest the request that includes the port target identifier and the LUN, and associating the AL_PA with the port target identifier and the LUN. As Wakeley notes at (col.18, lines 38-67), FC frame header contains fields that specify the source and destination fabric address of the FC frame. Both the D_ID(destinatin) and the S_ID(source) that specify a fabric address for a particular FC Port. In an arbitrated loop topology, AL_PA corresponds to the FC Port specification within the D_ID and S_ID.

Thus, the prior art teches the invention as claimed and the amended claims do not distinguish over the prior art as applied.

Conclusion

4. *Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kim Huynh whose telephone number is (703)305-5384 or via e-mail addressed to [kim.huynh3@uspto.gov]. The examiner can normally be reached on M-F 8:30AM-6:30PM.*

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached on (703) 305-4815 or via e-mail addressed to [mark.rinehart@uspto.gov]. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9306 for regular communications and After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)306-5631.

Kim Huynh

Feb. 24, 2004



Khanh Dang
Primary Examiner